



Gender Equality Plan

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Preamble

The heart and brain of VRVis' research and all its successes is the team behind it. Therefore, VRVis respects and values each employee and his/her potential, which it is eager to facilitate and grow.

“Our scientific excellence is based not only on our know-how but also on our corporate culture. We have increasingly devoted ourselves to the promotion of young talent, equal opportunities, and women’s advancement. We understand gender mainstreaming not only as an item on the agenda of European research policy but as part of our corporate identity. We believe that the key to a successful and forward-looking VRVis lies not only in the innovation of our daily research work but also in our corporate culture, which promotes inclusiveness, diversity, and creativity.” (VRVis Mission Statement)

As there are, unfortunately, very few women in the field of computer sciences, especially in visual computing - the reasons being numerous, VRVis has committed itself to equal opportunities and the advancement of women in order to actively increase the number of female researchers. To reach that objective, the Gender Equality Plan (GEP) is one tool to tailor VRVis' strategic efforts to overcome the underrepresentation of female researchers at the company level.

In this document, we introduce VRVis' GEP, its areas of action, targets and taken measures, the division of responsibilities, timelines, and indicators.

All activity is based on and supported by the commitment of VRVis' CEO Gerd Hesina, who affirms that “Our progress in increasing the percentage of female researchers at VRVis confirms that we are on the right track with our gender mainstreaming efforts, which we will continue to pursue in the future.”

1. Historical Overview and Future Strategy

Already aligned as an equal opportunity employer with an inclusive work atmosphere since VRVis was established in 2000, VRVis mirrored the share of female graduates in computer sciences with approx. 13% until 2016, which was unsatisfactory from a gender mainstreaming point of view. Therefore, starting in 2017, VRVis ambitiously intensified its efforts at an organizational level, which brought about the desired change. The major changes were twofold: a gender & diversity officer (GEO) was appointed, and additional resources were allocated, i.e., additional funding acquired and external expertise included/consulted. As a result, VRVis increased its share of female researchers from 13 % HC in 2016 to a staggering 32 % HC by 2021.

How did we do it?

The key factors to success were:

- ✓ The commitment of the CEO and upper management
- ✓ The appointment of a gender & diversity officer (GEO)
- ✓ The establishment of a gender strategy, i.e., Gender Equality Plan (GEP)
- ✓ The allocation of a corresponding budget

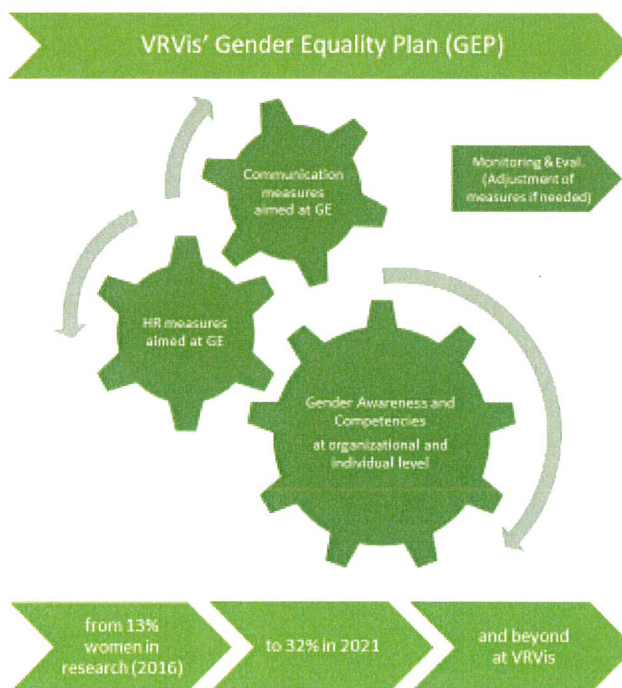
Following the principles and strategies outlined in our GEP, tailored to VRVis' state-of-play, we will continue to follow our overall objective "to continuously address the shortage of women at all levels."

2. GEP Areas of Action

VRVis focuses its actions on the areas with the greatest leverage, as also depicted in the figure below:

- Awareness and Training
- Communication
- HR with a dedicated emphasis on gender equality and diversity-related topics
- Monitoring and Evaluation

Figure 1: Interplay of areas of action



3. Measures and Objectives

The gender equality measures taken in the past, currently, and in the future can be categorized as follows:

- ✓ Gendered Leadership, Information, and Awareness
- ✓ Gendered Communication
- ✓ Gendered HR
- ✓ Gendered Research and Teaching (where applicable)
- ✓ Monitoring, Evaluation, and Adaptation

3.1. Gendered Leadership, Information, and Awareness

Objective: Keep the discourse going and continuously increase awareness.

The basis of all activities in the area of GE is **information and awareness-raising**. For this purpose, a **GEO** was appointed for initiating internal discourse and activities as needed, as well as safeguarding continuity. The GEO is backed up by the strong commitment of VRVis' leadership, i.e., **CEO and scientific director**, as well as the senior management.

In order to work on certain corporate topics respective **working groups** are established on demand. The necessary **budget is allocated** as well.

VRVis' corporate culture has always embraced equal opportunities; however, since 2017, there has been a heightened emphasis, not only by the strong commitment to the cause by VRVis' CEO.

Examples of **activities** in this area include:

- Gender balance in leadership: VRVis is headed by CEO Mr. Gerd Hesina and scientific director Mrs. Katja Bühler
- The commitment of VRVis' senior management
- Monthly exchange between leadership and senior management with inputs from GEO
- Establishment of the special interest group "Women in Research at VRVis" to facilitate networking and improvement of organizational structures
- PR support for the two founding members of the Austrian chapter of IEEE Women in Engineering network who work at VRVis
- The gender equality officer as contact point for all employees
- A physical mailbox for anonymous ideas and requests
- Regular employee surveys and gender analysis
- Availability of info-pages on gender mainstreaming in general and gender & diversity activities at VRVis in particular that are accessible online to all staff and authorized project partners

3.2. Gendered Communication

In its operating and working climate, VRVis is committed to **equal, anti-racist and anti-sexist discourse at eye level**.

All communication activities focus on the following three areas:

1. Internally
2. Externally
3. Both, internally and externally: Promoting female talent in MINT

3.2.1. Internal communication: Gender-sensitive and eye-to-eye corporate culture

Objective: Promote gender equality by respective communication inside VRVis.

All internal communication as well as corporate wording at VRVis – whether via e-mails, in lectures, in personal conversations, or in projects – is based on gender-sensitive and, of course, anti-racist principles. In all areas, both female and male spelling is used. As our team comprises more than ten nationalities, the languages used are German and English.

Internal management communication **emphasizes respectful language towards all employees and actively highlights the importance of equality at all levels** and at all times.

For internal communication, we also use monthly meetings plus luncheon for the entire staff (does not apply to CoV times) as well as online platforms developed specifically for VRVis internal communications, with a number of focus pages for information on gender equality, diversity, etc.

Dissemination of knowledge and exchange is actively promoted through regularly held VRVis forums. The lectures are an open platform where everyone from students to CEOs can present content and put it up for discussion.

For ideas and, of course, criticism that someone would like to share anonymously only, there is also a physical mailbox at VRVis. Submitted input is discussed/implemented in the regularly scheduled admin meetings.

3.2.2. External communication: Gendered Employer Branding

Objective: Promote gender equality by focused, gender-sensitive external communication.

In external communications, we focus on proactive and hands-on PR activities that show **humans at the center of research**. For this, we present the actual reality of our research activities on our website, our social media channels, and in the media. We present research exactly as it is at VRVis: female and male researchers coming together to develop innovative solutions for practical applications. We do so **to spotlight gender equality and its benefits** for companies and research in a very self-evident way. This also allows us not only to present VRVis as an Equal Opportunity Employer to the public but also to offer insights into a diversified corporate culture as an example of best practice. A good example of our efforts to make gender equality visible in the research field as well as the benefits of gender-sensitive recruiting is the brochure "Top-Level Research from Vienna"¹, which was jointly published with the Viennese research institution SBA Research and features a major focus on gender aspects in research.

The main pillars of our content creation are:

- The everyday work-life of researchers
- Dissemination of success stories and best practice use cases
- Low-threshold presentation of our research projects in inclusive language
- Highlighting the importance of application-oriented research and cross-discipline cooperation as it is conducted at VRVis
- Promoting female talent in MINT

¹ www.vrvis.at/spitzenforschung

3.2.3. General communication to promote female talent in MINT

Objective: Proactively show and promote the next generation of women in IT and research – not only within our company but also outside VRVis.

Bringing more women into research and tech careers, in general, is essential to any research center's mission. It is a scientifically proven fact that diversified and gender-balanced teams create a better and more productive working environment, and, of course, having diverse approaches to a research project leads to more resilient and well-considered results. At VRVis, we, therefore, **proactively communicate the importance of women in research** through our external communication activities. For this purpose, we feature our female researchers in PR spotlights, portraits on our website, and organize media interviews to specifically display their research work. Furthermore, we assist female (and male) researchers with and during the application process for awards, as nominations for awards, prizes, honors, and recognitions are also important tools to highlight and promote the researchers and their work. Since we are particularly passionate about promoting young talent, both male and female, we regularly take part in **science communication events** such as the Girl's Day, the nation-wide event Long Night of Research, Vienna Science Fair, or the European Researchers' Night. In addition, our doors are always open to pupils and students in the context of summer internships or bachelor's and master's thesis projects.

Some vital keywords for our communication efforts: organizational culture of respect, inclusiveness, equality, equal opportunities, diversity, creativity, empowerment, sustainability, excellence, human-centered research.

3.3. Gendered HR

Human resources management (HR) and VRVis' corporate culture are based on respect, inclusiveness, equal opportunities, diversity, creativity, and excellence. We have been **promoting work-life-balance** of our main asset, our staff, since VRVis was established. We are also committed to **preventing gender-based violence**, including sexual harassment.

The Gender Equality Officer does not only oversee the gender equality agenda but is also responsible for HR, i.e., combining two essential domains for VRVis' success. In addition, VRVis has appointed two safety-confidants and a third-party company physician.

Further activities in the field of human resources management (HR) are broken down into three areas:

1. Gendered Recruiting
2. Gendered Employee Relations (Onboarding and Retainment)
3. Gendered Advancement

3.3.1. Gendered Recruiting

Objective: Attract and hire more women for VRVis (leadership) positions.

As women are underrepresented in the visual computing field, with university graduation rates less than 15%, it is key for VRVis to attract the few women in the field. Therefore, gendered recruiting was established in 2017 with measures such as:

- Gender-sensitive job postings, i.e., using gender-sensitive, low-threshold wording
- Job postings are advertised in a variety of portals and for a longer period of time as well as promoted on Social Media

- Rethinking the requirements list and including what VRVis has to offer
- Especially encouraging women to apply
- Tight communication with the applicants throughout the application and selection process
- Balanced selection teams
- Continuation of a buddy system for onboarding and ongoing mentoring, e.g., actively support academic theses within our research groups

3.3.2. Gendered Employee Relations (Onboarding and Retainment)

Objective: Provide friction-free onboarding, obtain excellent personnel and promote female researchers.

Our main asset are all the smart, creative people who successfully research and innovate at VRVis. We have understood that our staff not only has different ways of working but also diverse community and family responsibilities. Therefore, promoting life-domain-balance for all staff has been the modus operandi since VRVis' establishment in 2000. We try to focus on individual solutions when challenges arise in the private lives of employees.

Within various research groups, with hierarchies kept as flat as possible, researchers come together as equal partners. We consider the well-being and job satisfaction of our employees a key factor for successful research work. Therefore, we take great importance in providing the most up-to-date and best **work-life balance strategies** for our team. We offer:

- Flextime with compensation time
- Home office
- Tailored part-time solutions to balance family and career, research and academic studies
- Paternity leave or papa month, as well as maternity leave
- Support for research trips and research stays abroad, and sabbatical-like arrangements for individual and/or professional progression
- Hierarchies are kept as flat as possible so that it is easier to find individual solutions to private changes or challenges
- Annual employee dialogues to discuss private and career progression as well as individual and group research objectives
- Young researchers still in education are fostered in their projects and mentored if desired
- Special interest group "Women in Research" as a platform and network especially for our female staff

In addition, VRVis' **organizational culture fosters open communication, equal distribution of information**, e.g., by providing an administrative and technical wiki on the intranet parallel to on-demand support by our administrative as well as technical support team, and **does not tolerate hate speech or gender-based violence** including sexual harassment. Open communication is encouraged by the flat hierarchies and the family-like working atmosphere at VRVis. Mediation takes place in case of conflict, and the safety-confidants, GEO, and company physician offer personalized support for all employees, but women in particular, as they were trained on gender equality topics.

3.3.3. Gendered Advancement and Training

Objective: Avoid the "leaky pipeline" and increase the share of females in upper management and decision-making.

The continuous training of VRVis personnel is essential to safeguard an appropriate balance between scientific excellence and industrial orientation. Therefore, VRVis offers its employees – in accordance with their respective qualification level – the opportunity for:

- Acquisition and/or improvement of scientific and technical skills as well as
- Acquisition and/or improvement of management skills with regard to projects, research, business, and leadership
- Both happens internally, nationally, or internationally

The basis of all qualification measures constitutes VRVis' ongoing in-house training by our senior scientists and key researchers as well as the VRVis-Forum, our in-house qualification measure, which is more formalized, and hosts presentations by internal speakers and/or invited talks by outside experts related to VRVis' research fields.

In addition, VRVis offers qualification measures tailored to the individual needs of its employees, such as conference participation or training on special topics like research proposal writing, gender bias, conflict management, and leadership.

As we have successfully increased the share of female researchers to about one-third, which is said to be the threshold for future self-sufficient organizational change, we also focus our career advancement efforts on women. The reason being twofold: we want to change stereotypical thinking in the field of visual computing by showing female role models, in particular to young professionals, and we want to gender-balance VRVis leadership. First success of the latter is the appointment of Mrs. Katja Bühler as VRVis' scientific director in 2021 and having Johanna Schmidt complete the leadership training "w-fORTE Innovatorinnen" organized by FFG.

VRVis also promotes the training of young professionals and regularly applies for „FEMtech-Praktika“ by FFG as this is a valuable tool to integrate female computer science interns into the daily business of a research organization and also give students low-threshold opportunities to experience working in research & development.

In general, we encourage high potentials to follow their research interests at VRVis and get support in order to acquire the necessary research funding.

The yearly employee dialogues that are standardized promote the continuous professional and individual progression of our researchers.

3.4. Gendered Research and Teaching

Objective: Include the gender dimension into VRVis' research, innovation content, and teaching efforts whenever possible.

When developing new research projects, great effort goes into keeping the proportion of female and male researchers balanced. The composition of the team naturally and foremost relies on individual competencies, nevertheless. VRVis also increasingly focuses its efforts on including the gender dimension into the research and innovation content itself. While at times it is not possible because the gender dimension has no relevance (i.e., tools used such as coding language), other times it only seems irrelevant at first sight, as Londa Schiebinger's ground-breaking work on "Gendered Innovations"² suggests. As a starter for our researchers, the "Checklist for Gender in Research"³ by

² <https://genderedinnovations.stanford.edu/what-is-gendered-innovations.html>

³ https://eige.europa.eu/sites/default/files/20193925_mh0119609enn_pdf.pdf

the European Institute of Gender Equality is available on VRVis' intranet, as well as Schiebinger's work as a more detailed reference point. In addition, the GEO can be consulted on the topic, or on-demand-working groups to deepen the topic in the scope of a certain research project are established. Furthermore, **VRVis has commissioned the study "Can Computers be Non-Binary - Studying the role of gender in the four research areas of VRVis Vienna"**⁴ to learn more about the state-of-the-art integration of the gender dimensions into VRVis' research and the areas to progress its efforts further.

Topics such as age, gender, nationality, identity, and others are considered in the research design at VRVis, as one fundamental in visual computing is to bring the human in the loop with technology and data. Therefore, not only in research but also in VRVis's teaching efforts – especially on topics such as usability and explainability – the gender dimension is included whenever possible: visual computing is fundamentally based on understanding individual perceptions, wherein especially gender sensitivity and equality are topics that need much more exploration. In lectures held by VRVis researchers, light is shed, and awareness is raised for related gender issues leading to a heightened awareness for the topic with young professionals.

Just to give one best practice example, a success story with regard to including the gender, age, and inclusiveness dimension into research resulting in an innovative application is VRVis' "Nudeldrucker", the predecessor to the sustainable 3D printing technology of tactile reliefs, e.g., of specific paintings exhibited in museums. The concept of the "sustainable on-demand printing method for tactile reliefs" revolutionized the accessibility of art by making 2D artwork available for visually impaired and even blind people. Furthermore, the tactile reliefs can be combined with an interactive and tactile multimedia guide⁵, which also was developed for an even better user experience and the inclusive museums and culture institutions of the future.

3.5. Monitoring, Evaluation, and Adaptation

Objective: Improve the "state-of-play" at VRVis.

The VRVis gender strategy and supplementing resources were published on the VRVis intranet and are continuously updated. The GEP was also published on VRVis' website. The implementation is overseen by the GEO and CEO. In order to safeguard that all objectives are met, i.e., the measures are successful, VRVis' monitoring system was extended by the gender dimension. As part of the annual reporting, all GE-relevant figures, e.g., share of female applicants, share of female interns, share of female employees in full-time and part-time, salaries, trainings, research topics, and budgets, etc. are analyzed and evaluated at management level. In our Annual Report, which is sent in print to all our partners, policymakers, and other relevant stakeholders, we communicate our growing proportion of women as one of the key figures.

Continuous monitoring and evaluation help to adapt and adjust the measures outlined in this GEP depending on organizational and employee needs.

⁴ <https://www.vrvis.at/publications/PB-VRVis-2021-026>

⁵ <https://www.arches-project.eu/mmg/>